

ACCESSION NR: AP4042192

increases during the transition from diphenylolpropane to resorcinol to hydroquinone. The main product is a cross-linked polymer which is insoluble in organic solvents and melts with decomposition. The equations for the reaction of unsaturated phosphoorganic polyesters with sulfur dioxide are given. The experimental data show that polyesters based on β -(n-butoxy) vinylphosphinic acid do not react with sulfur dioxide, apparently because of steric factors. With the other polyesters, when dichloroethane, dioxane or their mixture are used as solvents and the initiator is isopropylbenzene hydroperoxide, the reaction proceeds with evolution of heat. The resulting products do not dissolve in dichloroethane, dioxane or other organic solvents. A change in the reaction conditions does not lead to an increase in the amount of sulfur in the polymer. The curves relating the degree of hardening and the amount of initiator show that an increase in the amount of initiator decreases the formation of an insoluble residue. This is explained by the assumption that the addition of an increased amount of hydroperoxide forms a compound containing SO_3H groups with the cross-linked polymer.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskii institut im. S. M. Kirova (Kazan Chemical-Engineering Institute)

2/3

Card

ACCESSION NR: AP4042192

SUBMITTED: 06Sep63

SUB CODE: OC

NO REF SOV: 009

ENCL: 00

OTHER: 001

3/3

S/0020/64/156/003/0507/0509

ACCESSION NR: AP4038514

AUTHOR: Merzlyakova, G. D.

TITLE: Application of the method of finite differences to the solution of boundary-value problems on Riemann surfaces.

SOURCE: AN SSSR. Doklady*, v. 156, no. 3, 1964, 507-509

TOPIC TAGS: partial differential equation, boundary value problem, elliptic equation, second order, finite difference method, Riemann surface

ABSTRACT: The main part of the paper is concerned with the boundary-value problem:

$$\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} + c \frac{\partial u}{\partial x} + d \frac{\partial u}{\partial y} + g u = f, \quad (1)$$

where c, d, f, g are defined and continuous on each sheet of a bounded Riemann surface G , of genus p (realized as a many-sheeted region), and $g \leq 0$, together with the boundary condition:

$$\alpha \frac{\partial u}{\partial n} + \beta u = \psi$$

Card 1/3

ACCESSION NR: AP4038514

on the boundary Γ of G , which is supposed to be closed and piece-wise smooth, and $\alpha\beta \geq 0$, $\alpha^2 + \beta^2 \neq 0$. In applying the method of finite differences, a net is chosen in G so as to include every branch point and the same ordinary points in all the sheets. Equation (1) is re-written in terms of $z, \bar{z}$ at ordinary points, and in terms of the uniformizing parameter

$$\omega = \sqrt{z - z(p_0)} \quad (\text{and } \bar{\omega})$$

at each branch point p_0 , of order n . Thus, at a branch point the approximating difference equation is of the form

$$l[U_{ik}] \equiv 4nU_{ik} - \sum_{m=0}^{n-1} [U_{i-1,k}^{(m)} + U_{i+1,k}^{(m)} + U_{i,k-1}^{(m)} + U_{i,k+1}^{(m)}] = 0. \quad (4)$$

(m denotes the sheet number). Then the problem has a unique solution if $\beta \neq 0$ (if $\beta = 0$ additional conditions must be satisfied) and the iteration method, starting with any initial values, converges. The error can be estimated by known formulas at the ordinary points and by inequalities involving the maximum modulus of the second and of the fourth derivative, at the branch points (and of the order of h^2 , if h is the step.) Similar results can be obtained for an equation of type

$$aU_{xx} + bU_{yy} + cU_x + dU_y + gU = f(x, y)$$

where $a > 0$, $b > 0$, $g \leq 0$, on a Riemann surface of genus 1 with a finite slit.

Cor'd 2/3

ACCESSION NR: AP4038514

Several other cases are discussed. The method has been used on the Aragats electronic computer. (For example, it took 1.5 min. to solve the Dirichlet problem on a surface of genus 10.) "Credit is given to L. A. Lyusternik for suggesting the problem more than thirty years ago." Orig. art. has: 7 equations.

ASSOCIATION: Permskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Perm State University)

SUBMITTED: 05Feb64

ENCL: 00

SUB CODE: MA

NO REF SOV: 010

OTHER: 001

3/3

L 31307-65 EWT(d) IJP(c)

ACCESSION NR: AR5004807

S/0044/64/000/011/B106/B106

SOURCE: Ref. zh. Matematika, Abs. 11B479

20
B

AUTHOR: Merzlyakova, G. D.

TITLE: Application of the method of finite differences to the solution and to the investigation of boundary value problems on a Riemann surface

16

CITED SOURCE: Uch. zap. Permsk. un-t, no. 103, 1963, 183-187

TOPIC TAGS: Riemann surface, boundary value problem, existence theorem, uniqueness theorem, Dirichlet problem, Neumann problem, computer programming/Aragats

TRANSLATION: The solution is presented of the boundary value problem on a bounded multiple-sheet domain G for functions that are solutions of the following equation (in complex notation)

Cord

1/4

L 31307-65

ACCESSION NR: AR5004807

$$\frac{\partial^2 u}{\partial z^2} + C \frac{\partial u}{\partial z} + D \frac{\partial u}{\partial z} + Eu = \bar{F}$$

or (in terms of x and y)

$$\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} + c \frac{\partial u}{\partial x} + d \frac{\partial u}{\partial y} + eu = f, \quad (1)$$

where c, d, e, and f are continuous functions of x and y in $G + \Gamma$, $e \leq 0$.

The boundary condition is

$$\left[\alpha \frac{\partial u}{\partial n} + \beta u \right]_{\Gamma} = \psi, \quad \alpha \cdot \beta > 0; \alpha^2 + \beta^2 \neq 0.$$

After approximating (1) by finite-difference constructions accurate to h^2 (h -- interval of the grid), a system of equations is obtained, which can be symbolically written in the form

Card

2/4

L 3130/-65

ACCESSION NR: AR5004807

$$\sum_{j=1}^N a_{lj} u_j = f_l; \quad l=1, 2, \dots, N, \quad (2)$$

where N -- number of internal points on all the sheets of the n-sheet domain G, with the branch point being counted once for all the sheets which it "secures."

The author proves the existence and uniqueness of the solution of the system (2), and also the convergence of the iteration process. An instrument of the error is given. It is indicated that the "Bragats" electronic computer produced within 1.5 minutes a solution of the Dirichlet problem on the surface of kind 10, and it took 1 minute to reconstruct the function $f(z) = u + iv$ on a torus with a curvilinear cut-out, solutions are obtained for the Neumann boundary problems and for the third boundary value problem, and the harmonic and quasi-harmonic measures are found on a 30-sheet domain and on the surface of kind 42 (13) on a non-orientable surface

Card

3/4

L 31307-65

ACCESSION NR: AR5004807

O

(Moebius sheet). Bibliography, 13 titles. I. Shelikhova.

SUB CODE: MA

ENCL: 00

Card

4/4

L 21306-65 EWT(d) IJP(c)

ACCESSION NR: AR5004806

S/0044/64/000/011/B106/B106

SOURCE: Ref. zh. Matematika, Abs. 11B476

21
B

AUTHORS: Merzlyakova, G. D.; Keller, S. L.

TITLE: Electronic computer solution of boundary problems on Riemann surfaces by the method of finite differences

CITED SOURCE: Uch. zap. Permsk. un-t, no. 103, 1963, 188-192

TOPIC TAGS: Riemann surface, Dirichlet problem, Neumann problem, finite differences method, numerical method, computer programming, Aragats

TRANSLATION: A description is presented of logic circuits for the programs of the following problems, solved on the "Aragats" electronic computer: the Dirichlet problem on multi-sheet domains with branch points, and the Dirichlet and Neumann problems on a torus in which

Card 1/3

L 31306-65

ACCESSION NR: AR5004806

0

there is an opening, for the functions $u(x, y)$ satisfying the equation $\Delta u = 0$ or the equation

$$\Delta u + p u_x + q u_y = 0,$$

where Δ -- Laplace operator. It is indicated that the programs had been made up with account of the possible change in the number of sheets and branch points. The numerical results were obtained for a 30-sheet domain with 78 branch points, for a 10-sheet domain (26 branch points), and for the case of a two-sheet domain with 4, 6, 22, and 84 branch points. The grid is square and the same on all sheets. The solution of the problems was made with intervals h and $h_1 = h/2$. At the n -th order branch point, the value of $u(p_0)$ was calculated by the formula

$$u(p_0) = \frac{1}{4n} \sum_{k=0}^{n-1} \{u(p_1^{(k)}) + u(p_2^{(k)}) + u(p_3^{(k)}) + u(p_4^{(k)})\},$$

Card

2/3

I. 31306-65

ACCESSION NR: AR5004806

where $p_i^{(k)}$ ($i = 1, 2, 3, 4$) -- points neighboring with p_0 on all sheets, which are "secured" by the branch point. The solution was made by the method of iterations. Bibliography, 4 titles. I. Shelikhova.

SUB CODE: MA

ENCL: 00

Card

3/3

45303-66 EWT(d)/T LJP(c)
ACC NR: AR6015987

SOURCE CODE: UR/0044/65/000/011/B061/B061

AUTHORS: Merzlyakova, G. D.; Rodin, Yu. L.

TITLE: Riemann boundary value problem for vector-functions

SOURCE: Ref. zh. Matematika, Abs. 11B273

REF SOURCE: Uch. zap. Permsk. un-t, no. 103, 1963, 46-48

TOPIC TAGS: boundary value problem, complex function, complex variable, analytic function

ABSTRACT: On the closed Riemann surface R of type p consider the vectors dZ whose components $dZ_1, \dots, dZ_n$ are meromorphic differentials of fixed order. A differential of order μ is called differential of first type if for $\mu \geq 0$ it has no poles and for $\mu \leq 0$ it has no zeros. dZ is called a vector-differential of first type if all its components are of first type. Let $D(D_1, \dots, D_n)$ be a vector-divisor on R . We say that $dZ \geq D$ if $dZ_j \geq D_j$ ($j = 1, \dots, n$). The authors consider the space M of vectors, briefly D . The space N of vectors $d\psi$ ($d\psi_1, \dots, d\psi_n$) is called conjugate to M ; here $d\psi_j$ is of order $1 - \mu$ and μ is the order of dZ_j . Using the theorem of Riemann Rokh and the matrix analog of the kernel of Benke and Shtein, the authors obtain the

Card 1/2

UDC: 517.948.32:517.544

L 45303-66

AGC NR: AR6015987

following results: 1) $k - k' = \kappa + \pi + \sum_{\mu} K_{\mu} (2\mu - 1) (p - 1)$, where k is the number of solutions of the problem $\bar{\Phi}^+ = G \bar{\Phi}^- + g$ for $g \in 0$, k' is the number of solutions of the conjugate problem $d\Psi^+ = [G']^{-1} d\Psi^-$, $\kappa = \text{ind det } G$, $\pi = \text{ord } D$, K_{μ} is the number of components of order μ of the desired vector; 2) necessary and sufficient conditions for solvability of the Riemann problem are: $\int_{\Gamma} g'(\iota) d\Psi^{+(k)} = 0$, $k = 1, 2, \dots$, where $d\Psi^{+(k)}$ is the basis of the solutions of the conjugate problem. There are no proofs. Reading is also difficult because of misprints in the text and in formulas (1), (3), (4), (7), (9), (11). E. Zverovich [Translation of abstract]

SUB CODE: 12

Card 2/2 mjs

MERZLYAKOVA, L.D.

Atypical course of lung cancer. Sov. zdrav. Kir. no.6:
48-50 N.-D'62. (MIRA 16:6)

1. Iz Kirgizskogo nauchno-issledovatel'skogo instituta on-
kologii i radiologii (dir. - prof. A.I.Sayenko).
(LUNGS—CANCER)

MERZLYAKOVA, G.D.

Use of the method of finite differences in solving boundary
value problems on Riemann surfaces. Dokl. AN SSSR 156 no. 3:
507-509 '64. (M.R. 17:5)

1. Permskiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom P.Ya.Kochinoy.

MERZLYAKOVA, M. A.

MERZLYAKOVA, M. A.: "Investigation of the movement of the comet 1943 IX Ashbrook-Jackson". Leningrad, 1955. Acad. Sci. USSR. Main Astronomical Observatory. (Dissertations for the degree of Candidate of Physicomathematical Sciences.)

SO: Knizhnaya Letopis' No. 50. 10 December 1955. Moscow

MERZLYAKOVA, M.A.

Ashbrook-Jackson's comet (1948 IX). Biul. Inst. teor. astron.
7 no.2:120-139 '58. (MIRA 13:3)
(Comet, Ashbrook-Jackson's)

MERZLYAKOVA, M.A.

Supernova in NGC 5905. Astron. tsif. no. 2631. 1963.
(MIRA 1715)

1. Institut teoreticheskoy astronomii AN SSSR, Leningrad.

MERZLI^YAKOVA, M. N.

M. N. Merzliakova, Z. M. Alekseyeva, I. N. Vozhenin, and V. N. Detinko, "Temperature stabilization of self-oscillators using transistors." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep 58.

The question of the reasons for the frequency and amplitude drift of transistor self-oscillators is analyzed and a simple method is proposed for thermo-stabilization in a wide temperature range.

9.2584 (also 1154)

S/139/61/000/001/010/018
E192/E382

AUTHOR: Merzlyakova, M.N.

TITLE: Thermal Frequency Instability of Transistor
Oscillators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1961, No. 1, pp. 110 - 114

TEXT: The influence of the relevant parameters of a transistor on the oscillation frequency of a transistor oscillator is investigated analytically and experimentally. The oscillator considered is shown in Fig. 1. It is seen that the system is provided with a capacitive feedback between the collector and the emitter. The analysis of such an oscillator was carried out in a paper by Yu.N. Az'yan et al (Ref. 1) where the following equation for the oscillation frequency was derived:

Card 1/8

S/139/61/000/001/010/018⁸⁹⁷⁰²
E192/E382

Thermal Frequency

$$\omega^2 = \frac{1}{L \left\{ C + \left[C_K + C_c (1 - Re \alpha - \omega C_c r_s / m \alpha) \right] \left[1 - r_{bo} \left(\frac{1}{r_K} + \omega C_c / m \alpha \right) \right] \right\}} \quad (1) \quad \checkmark$$

In this, C_K , r_K are the capacitance and the resistance of the collector junction, r_s is the resistance of the emitter junction, r_{bo} is the resistance of the base, α is the current gain, L and C are the parameters of the oscillatory circuit and C_c is the coupling or feedback capacitance. From Eq. (1) it follows that the frequency instability is caused by the temperature-induced changes of the following parameters of the transistor: r_s , r_K , r_{bo} , C_K and α . In order to determine the dependence of the frequency instability on these parameters it is necessary to

Card 2/8

89702

Thermal Frequency

S/139/61/000/001/010/018
E192/E382

find their temperature dependence. The collector capacitance C_K consists of a barrier capacitance C'_{K0} and diffusion capacitance C_d . The barrier capacitance can be expressed by (Ref. 4):

$$C'_{K0} = C_{K0} \sqrt{1 + \frac{I_{K0} + \alpha I_2}{q p_1 \sqrt{\frac{2(E_K + \phi_K)}{m}}}} \quad (3)$$

where C_{K0} is given by:

$$C_{K0} = \sqrt{\frac{\epsilon}{4 \mu_n C_n (E_K + \phi_K)}} \quad (2) .$$

Card 3/8

89702

S/139/61/000/001/010/018
E192/E382

Thermal Frequency

In the above equations, ϵ is the permittivity of germanium,
 μ_n is the electron mobility,
 E_K is the supply voltage to the collector,
 ϕ_K is the contact potential difference,
 p_1 is the concentration of the charges in the base region,
 m is the mass of the charge carrier and
 I_{K0} is the saturation current of the collector.

The temperature dependence of the diffusion capacitance can be determined from the following formula (Ref. 5):

$$C_d = \frac{1.2}{\omega_{\alpha}(1 - \alpha_0)r_K} \quad (4) .$$

Card 4/8

89702

Thermal Frequency

S/139/61/000/001/010/018
E192/E382

From this equation it is seen that C_d increases with increasing temperature. The barrier capacitance also increases with temperature (as can be seen from Eq. 3); this is due primarily to the increase of the collector saturation current and the increase of the emitter current. The change of the collector capacitance C_K with temperature was investigated experimentally in the temperature range from -50 to $+50$ °C for three types of junction transistor. The experiment showed that the changes of the collector capacitance over the above temperature range were not unduly large (of the order of 1-3%). The temperature dependence of the remaining parameters of the junction transistors was investigated by W.W. Gärtner (Ref. 7), where it was shown that r_i and r_{e0} increase in proportion to T while the changes of $\text{Re } \alpha$ and $\text{Im } \alpha$ are primarily determined by the temperature dependence of the cut-off frequency $\omega_{0\alpha}$. It is thus possible on the basis of Eq. (1) to determine the temperature-caused deviations of frequency

Card 5/8

89702

Thermal Frequency

S/139/61/000/001/010/018
E192/E382

due to the parameters of the transistor. It follows that the oscillation frequency should be reduced with increasing C_K and decreasing $Re \alpha$; on the other hand, the frequency increases with increasing r_e , r_{co} and $1/r_K$. The frequency deviation due to temperature was investigated experimentally and the results are shown in two figures. From the theory and the experiments, it is concluded that the temperature frequency instability of the oscillator is primarily determined by the changes of the collector capacitance C_K .

The stability can be increased by reducing the emitter current and increasing the collector voltage. The frequency stability can be further improved by stabilising the collector current and reducing the collector-base load. The author thanks Candidate of Physicomathematical Sciences V.N. Detinko for constructive criticism and help in this work.

Card 6/8

Thermal Frequency

S/139/61/000/001/010/018
E192/E382

There are 4 figures and 8 references: 5 Soviet and
3 non-Soviet.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri
Tomskom gosuniversitete imeni V.V. Kuybysheva
(Siberian Physicotechnical Institute of Tomsk
State University imeni V.V. Kuybyshev)

SUBMITTED: February 19, 1960

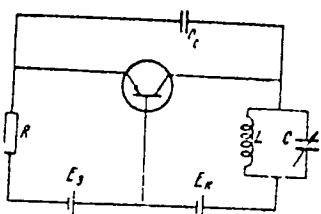
Card 7/8

89702

Thermal Frequency

S/139/61/000/001/010/018
E192/E382

Fig. 1:



Card 8/8

MASHKOV, I.P.; MERZLYAKOVA, M.V.; PETROPAVLOVSKAYA, N.P.

First All-Russian Congress of Roentgenologists and the first All-Russian
Conference on Fluorography. Sov. zdrav. Kir. no.3:59-62 My-Je '62.

(MIRA 15:5)

(RADIOLOGY, MEDICAL--CONGRESSES)
(DIAGNOSIS, FLUOROSCOPIC--CONGRESSES)

MEZLIYAKOVA, O.M.

MEZLIYAKOVA, O.M.--"Methods of Fixing Knowledge of the Syntax of Simple Propositions in the V and VI classes of Intermediate Schools." *(Dissertation for Degrees in Science and Engineering Defended at USSR Higher Education Institutions.) Leningrad State Pedagogical Institute A. I. Gertsen, Chair of Methods of Teaching Russian, Leningrad, 1955

SO: Knizhnaya Letopis', No. 25, 15 Jun 1955

* For Degree of Candidate in Pedagogical Sciences

MERZLYAKOVA, V.

Practical work of construction workers in the new lands. Prof.-tekh.
obr. 12 no.4:32 Ap '55. (MLRA 8:7)

1. Metodist Molotovskogo oblastnogo upravleniya trudovykh rezervov.
(Kazakhstan--Building)

MFREKALO'VA, Z.I.

Deformation of bones and teeth in hamsters due to the latent
rat virus. Vop. virus. 10 no.4:406-409 J1-Ag '65.

(MIRA 18:8)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN
SSSR, Moskva.

MERZLYAKOVA, Z.S. (Novosibirsk)

Use of problem drawings in measuring the knowledge of students.
Fiz.v shkole 22 no.5:97-99 S-O '62. (MIRA 15:12)
(Physics--Problems, exercises, etc.)

ALEKSEYEV, A.Ye.; ASHCHEULOV, V.P., inzh.; MAKIMOV, Yu.I., inzh.; MERZLYUTIN, Yu.B., inzh.; MIKHAYLOV, V.A., kand.tekhn.nauk; MORNEVSKIY, B.I., kand.tekhn.nauk

System of self-excitation and compounding for synchronous generators used on ships. Sudostroenie 25 no.1:58-62 Ja '59. (MIRA 12:3)

1. Chlen - korrespondent AN SSSR (for Alekseyev).
(Electric generators) (Electricity on ships)

BEDIN, V.V.; MAKSIMOV, Yu.I.; MERZLYUTIN, Yu.B.; MIKHAYLOV, V.A.;
NORIEVSKIY, B.I.

Self-excited synchronous generators with direct phase com-
pounding. *Bul.tekh.-ekon.inform.* no.5:48-50 '59.
(MIRA 12:8)

(Electric generators)

6
 Yu. M. ZILBERMAN, S. B., Cand. Tech Sci ³⁴³ → "Study of the direct
 photoexcitation of the line synchronous generation. Leningrad,
 1951. 17 pp (in "Higher Education" R. Inst. of Electrical En-
 gineering Inst. V.I. Il'yenov (Leningrad)), 150 copies (1951, 1952, 1953)

- 33 -

BEDIN, Vladimir Vasil'yevich; ILYASOV, Viktor Andreyevich;
MAKSIMOV, Yuriy Ivanovich; MERZLYUTIN, Yuriy
Borisovich; MIKHAYLOV, Vladimir Aleksandrovich;
NORNEVSKIY, Boris Ivanovich; YEVSEYEV, V.I., red.

[Automatic control of marine synchronous generators;
systems of direct compounding; static conditions] Avto-
matizatsiia sudovykh sinkhronnykh generatorov; sistemy
priamogo kompaundirovaniia: staticheskie rezhimy: Ucheb-
noe posobie po kursu "Elektroenergeticheskie ustanovki
sudov." Leningrad, Leningr. elektrotekhn. in-t im. V.I.
Ul'ianova (Lenina), 1962. 91 p. (MIRA 16:10)
(Electricity on ships) (Automatic control)

MERZON, A.G., inzh.

Change the order of leather grading. Leg.prom. 18 no.10:16
0 '58. (MIRA 11:11)
(Leather)

DERBAHEMDIKER, M.L., kand.tekhn.nauk; MERZON, A.G., inzh.ekonom.

Consistency of vegetative tanning extracts. Kozh.-obuv.prom.
no.2:21-22 F '59. (MIRA 12:6)

(Tannins)

MERZON, A.G.

New developments in the method of determining the degree of mechanization of labor. Kozh.-obuv.prom. no.7:7-9 J1 '59.

(Machinery in industry)

(MIRA 12:11)

SHIROKOV, B.G., inzh.; MERZON, A.G., inzh.

Practical shape of leather to be used for shoe welts. Kozh.-
obuv.prom. no.9:14-17 S '59. (MIRA 13:2)
(Shoe manufacture)

LIVYY, G.V., kand.tekhn.nauk; MERZON, A.G., inzh.

It is necessary to increase the use of pigskin in shoe
manufacture. Kozh.-obuv. prom. 2 no. 11:12-13 N '60.

(Ukraine--Shoe manufacture)

(Leather)

(MIRA 13:12)

MERZON, A.G., inzh.; CHEREDNICHENKO, Ya.F., inzh.

Some potentials of an increase in labor productivity on conveyerized
production lines in shoe factories. Izv.vys.ucheb.zav.; tekhn.leg.
prom. no.3:14-19 '61. (MIRA 14:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut kozhevenno-obuvnoy
promyshlennosti. Rekomendovana kafedroy ekonomiki promyshlennosti
organizatsii proizvodstva Kiyevskogo tekhnologicheskogo instituta
legkoy promyshlennosti.

(Shoe industry—Labor productivity)
(Assembly-line methods)

ISPIRYAN, G.P.; MERZON, A.G.; AFANAS'YEVA, A.A., dots., retsenzent;
PLEMYANNIKOV, M.N., red.; KNAKNIN, M.T., tekhn. red.

[Analysis of the production operations of leather factories]
Analiz proizvodstvennoi deiatel'nosti kozhevennykh zavodov.
Moskva, Rostekhzdat, 1962. 90 p. (MIRA 16:2)
(Leather industry--Accounting)

YELEN, B.L. [Ielen, B.L.], inzh.; MERZON, A.G. [Merzon, A.H.], inzh.;
ZHURAVITSKAYA, Sh.M. [Zhuravyts'ka, Sh.M.], inzh.; VOL'VICH,
R.M., inzh.; RYBAL'CHENKO, L.K.

Potentialities for improving the economy characteristics of
shoe upper styles by designing matching pattern contours.
Leh.prom. no.1:73-75 Ja-Mr '62. (MIRA 15:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut kozhevennoy
promyshlennosti.

(Ukraine--Shoe manufacture)

DUSHIN, B.M. [Dushyn, B.M.]; MERZON, A.G. [Merzon, A.H.]

Some problems in the setting of norms for the expediture of raw leather. Leh.prom. no.4:77-80 O-D '62. (MIRA 16:5)

1. Kiyevskiy kozhevennyy zavod No.6 (for Dushin). 2. Ukrainskiy nauchno-issledovatel'skiy institut kozhevenno-obuvnoy promyshlennosti (for Merzon).

(Ukraine--Leather industry)

MERZON, A.G., inzh.; GERSHUN, N.O., inzh.; SEMERNYA, T.V., inzh.

Some potentials for the increase of labor productivity on the
conveyorized lines of shoe factories. Nauch.-issl.trudy Ukr
NIIPK no.13:237-246 '62. (MIRA 18:2)

MERZON, A.G.; GERSHUN, N.O.; SHINKAREV, I.I.; PUZINOVSKIY, E.I.;
KUCHERENKO, A.G.

Collective wages in the conveyerized production lines of shoe
factories. Kozh.-obuv.prom. 4 no.3:8-10 Mr '62. (MIRA 15:5)
(Wages--Shoe industry)

MERZON, A.; GERSHUN, N.

Group wages of assembly-line workers in shoe factories.
Sots.trud. 7 no.6:61-63 Je '62. (MIRA 16:2)
(Wages—Shoe industry)

MERZON, A.G.

Some potentials for the lowering of the costs of production
in the leather industry. Kozh.--obuv. prom. 4 no. 11-14
Jl '62. (MIRA 1962)

GRAD, N.Ye.; DUSHIN, B.M.; MERZON, A.G.; SHNITNIKOV, S.Ya.; KOVTUNOVICH, S.D.;
UMANSKIY, A.A.

Efficient utilization of crumpled hides in the manufacture of chrome
leather. Kozh.-obuv.prom. 6 no.1:20-22 Ja '64. (MIRA 17:4)

MERZON, A.K.

Etiology of diffuse nephritis. Sov.med.18 no.1:16-17 Ja '54.
(MLRA 7:1)

1. Iz otdela funktsional'noy patologii (zaveduyushchiy D.F.
Chebotarev) Ukrainskogo instituta klinicheskoy meditsiny
im. akademika N.D.Strazhesko (direktor - professor A.L.Mikhnev).
(Kidneys--Diseases)

HERZON, A.K., kandidat meditsinskikh nauk.

Diagnosis of diffuse nephritis in endocarditis. Terap. arkh. 27
no.8:59-68 '55 (MLRA 9:5)

1. Iz kafedry propedevticheskoy terapii (zav.-dotsent M.I. Frankfurt)
Stalinskogo meditsinskogo instituta i otdela funktsional'noy
diagnostiki (zav.-prof. A.A. Ayzenberg) Ukrainskogo nauchno-
issledovatel'skogo instituta klinicheskoy meditsiny imeni akad.
N.D. Strazhesko.

(ENDOCARDITIS, diagnosis,
nephritis, diffuse, diag.)
(NEPHRITIS, complications,
endocarditis, diag.)

MERZON, A.K., kandidat meditsinskikh nauk

Hemodynamics of the liver in patients with insufficient blood
circulation. Vrach.delo no.2:149-156 F '56. (MLRA 9:7)

1. Kafedra propedevticheskoy terapii (zaveduyushchiy dotsent M.I.
Frankfurt) Stalinskogo meditsinskogo instituta
(LIVER--BLOOD SUPPLY)
(BLOOD-CIRCULATION, DISORDERS OF)

MERZON, A.K.
GANICHKIN, A.M., dotsent (Stalino); MERZON, A.K., kandidat meditsinskikh nauk
(Stalino)

Clinical aspects, diagnosis, and treatment of pheochromocytomas.
Probl.endok. i gorm. 3 no.2:47-56 Mr-Apr '57. (MIRA 10:10)

1. Iz kafedry obshchey khirurgii (zav. - prof. A.I.Charugin) i
kafedry propedevticheskoy terapii (zav. - dotsent M.I.Frankfurt)
Stalinskogo meditsinskogo instituta imeni M.Gor'kogo (dir. -
dotsent A.M.Ganichkin).
(PHEOCHROMOCYTOMA (Rus))

MERZON, A.K., kandidat meditsinskikh nauk

Methods for determining renal circulation. Terap.arkh. 29 no.6:
69-78 Je '57. (MIRA 10:10)

1. Iz kafedry propedevticheskoy terapii (zav. - dotsent M.I. Frankfurt) Stalinskogo meditsinskogo instituta.
(KIDNEYS, blood supply,
circ. time, determ. (Rus))

MERZON A.K.

MERZON, A.K., kand.med.nauk

Characteristics of the dynamics of diffuse nephritis in patients
with endocarditis. Klin.med. 35[1.e.34] no.1 Supplement:21 Ja '57.
(MIRA 11:2)

1. Iz kafedry propedeuticheskoy terapii (zav. - dotsent M.I.
Frankfurt) Stalinskogo meditsinskogo instituta i otdela funktsional'-
noy diagnostiki (zav. - prof. A.A.Ayzenberg) Ukrainskogo nauchno-
issledovatel'skogo instituta klinicheskoy meditsiny imeni akad. P.D.
Strazhesko.

(ENDOCARDITIS) (KIDNEYS--DISEASES)

MERZON, A.K., kand.med.nauk, ZAKHAROVA, O.A., kand.med.nauk

Symmetrical aneurysms of both main branches of the pulmonary artery.
Vrach.delo no.9:931-933 S'58 (MIRA 11:10)

1. Kafedra propedevticheskoy terapii (zav. - dots. M.I. Frankfurt)
i kafedra patologicheskoy anatomii (zav. - dots. Ye.A. Dikshteyn)
Stalinskogo meditsinskogo instituta.
(PULMONARY ARTERY--DISEASES)
(ANEURYSMS)

MERZON, A.K., dotsent

Prognostic significance of diffuse nephritis in subacute bacterial endocarditis. Sov.med. 23 no.7:30-35 J1 '59. (MIRA 12:11)

1. Iz kafedry propedevticheskoy terapii (zav. - dotsent M.I. Frankfurt) Stalinskogo meditsinskogo instituta i otdela funktsional'noy diagnostiki (zav. - prof.A.A.Ayzenberg) Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy meditsiny imeni N.D. Strazhesko.

(ENDOCARDITIS, SUBACUTE BACTERIAL complications)
(NEPHRITIS complications)

MERZON, A.K., dotsent

Discussion on kidney finction test methods. Terap.arkh. 32 no.9:
87-90 '60. (MIRA 14:1)

1. Iz kafedry propedevticheskoy terapii (zav. - dotsent M.I.
Frankfurt) Stalinskogo meditsinskogo instituta.
(KIDNEYS)

MERZON, A.K., dotsent (Stalino)

Renal circulation in cardiac insufficiency. Klin.med. 39
no.5:6-12 My '61. (MIRA 14:5)

1. Iz kafedry propedevticheskoy terapii lechebnogo fakul'teta
(zav. - dotsent M.I. Frankfurt) Stalinskogo meditsinskogo
instituta.

(HEART FAILURE) (KIDNEYS--BLOOD SUPPLY)

MERZON, A.K., dotsent; KAS'YANOVA, T.N.

Data on the characteristics of the diuretic action of fomarit.

Terap.arkh. no.8:122 '62.

(MIRA 15:12)

1. Iz kafedry propedevticheskoy terapii lechebnogo fakul'teta
(zav. - dotsent M.I. Frankfurt) Donetskogo meditsinskogo instituta.
(THIADIAZOLE SULFONAMIDE)

MERZON, A.K.; NESTEROVA, L.P.; KAS'YANOVA, T.N.

Use of corticosteroids in cardiac insufficiency. Sov. med.
27 no.12:22-30 D'63 (MIRA 17:4)

1. Iz kafedry propedevticheskoy terapii (zav. - prof. M.I.
Frankfurt) lechebnogo fakul'teta Donetskogo meditsinskogo
instituta.

MERZON, A.K., dat sent

Chloride excretory function of the kidney in chronic insufficiency.
Kardiologia 3 n. 5: 11-15 3-0 '63. WDA 17: 1

1. Iz kafedry propedevicheskoy terapii (zav. - prof. N. I.
Frankfurt) i neobrazovaniya i razvitiya kardiologii v
Institut.

MERZON, A.K., dotsent; KAS'YANOVA, T.N.

Materials on comparative evaluation of modern diuretics. *Sov. med.*
28 no.5:1C2-110 My '65. (MIRA 18:5)

1. Kafedra propedevticheskoy terapii (zav. - prof. M.I.Frankfurt)
lechebnogo fakul'teta Donetskogo meditsinskogo instituta.

MEZENTSEV, Mikhail Danilovich; MERZON, A.S., otv. red.; GRINER,
N.S., red. izd-va; LOMILINA, L.N., tekhn. red.

[Technical, industrial, and financial plan of a mine] Tekh-
promfinplan shakhty. Moskva, Gosgortekhnizdat, 1962. 210 p.
(MIRA 16:3)

(Coal mines and mining--Management)

USKOV, A.A., red.; RZHEVSKIY, V.V., prof., doktor tekhn. nauk, red.; SOKOLOVSKIY, M.M., red.; MIKHAYLINKO, I.G., red.; BUGOSLAVSKIY, Yu.K., red.; SOBITSKIY, V.V., red.; VINITSKIY, K.Ye., red.; STAKHEVICH, Ye.B., red.; KENIL, S.I., red.; MERZON, A.S., red.; SITNIKOV, V.P., red.; SOPESHKO, N.F., red.; BLAYVAS, M.S., red.

[Studies of the All-Union Scientific and Technical Conference on improving the equipment and technology of mining minerals by the open pit method] Materialy Vsesoyuznogo nauchno-tekhnicheskogo soveshchaniya po sovershenstvovaniyu tekhniki i tekhnologii razrabotki poleznykh iskopaemykh otkrytym sposobom. Moskva, Nedra, 1965. 285 p. (MIRA 18:6)

1. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po sovershenstvovaniyu tekhniki i tekhnologii razrabotki poleznykh iskopaemykh otkrytym sposobom, Cherenkhovo, 1964. 2. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki (for Rzhnevskiy). 3. Glavnyy spetsialist Gosudarstvennogo komiteta tyazhelogo, energeticheskogo i transportnogo mashinostroeniya pri Gosplane SSSR (for Bugoslavskiy).

MERZON, Aleksandr Tsezarevich, kand.istor.nauk [deceased]; TIKHONOV,
Yuriy Aleksandrovich; USTYUGOV, N.V., doktor istor.nauk, otv.
red.; PODGORNENSKAYA, TS.M., red.izd-va; NOVICHKOVA, N.D.,
tekhn.red.

[The market of the Great Ustyug; during the development of an
all-Russian market in the 17th century] Rynok Ustiuga Velikogo;
v period skladyvaniia vsierossiiskogo rynka (XVII vek). Moskva,
Izd-vo Akad.nauk SSSR, 1960. 714 p. (MIRA 13:8)
(Ustyug--Commerce)

MERZON, Emil' Davidovich; IVANOV , N.N., prof., red.; BOCHAROVA, Yu.F.,
red.; GARINA, T.D., tekhn. red.

[Collection of problems on mechanical drawing] Zadachnik po
mashinostroitel'nomu chercheniiu. Pod red. N.N.Ivanova. Mo-
skva, Gos.izd-vo "Vysshaya shkola," 1961. 217 p.
(MIRA 15:3)

(Mechanical drawing--Study and teaching)

18.21, 18.11 Davidov; 18.11, 18.11, 18.11, 18.11.

[Collection of problems on technical drawing] Samon-
nik [o mashinostroitel'nomu strojeniu. Moskva, Izd.2.,
1964. Vysshiaia shkola, 1964. 319 p. (MHA 17:8)

MERZON, F. S.

Merzon, F. S. "Treatment of infections in dystrophic children as manifestation of hypoergia," Trudy VI Vsesoyuz. s'ezda det. vrachey, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 276-79

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Stateli, No. 3, 1949)

MERZON, F.S.

Viral influenza in children. *Pediatrics* 39 no.1:36-40 Jan-F '56.
(MLR 10:1)

1. Iz Kiyevskogo instituta epidemiologii, mikrobiologii i
gigieny (dir. - kandidat meditsinskikh nauk S.N.Terekhov)
(INFLUENZA, in inf. and child)

MERZON, Frida Solomonovna

[Virus influenzae in children] Virusnyi gripp u detei. Kiev, Gosmed-
izdat, USSR, 1960. 248 p.

(MIRA 14:7)

(INFLUENZE)

MINKIN, Z.I.; MERZON, G.D.

Operation of cable lines. Prom.energ. 12 no.1:5-7 Ja '57.

(MLRA 10:2)

(Electric cables) (Heating pipes)

Merzon, G.

*Heater
1 - PMU?*

USSR.

537.591.8

2549. The spectrum of fast protons generated by the neutral component of cosmic radiation. A. DADAZAN AND G. MERZON. Dokl. Akad. Nauk SSSR, 86, No. 2, 299-301, 1975. In Russian.

Using 3 trays of crossed "co-ordinate counters" in a magnetic field the momentum spectrum was measured for charged particles generated by neutral particles which entered a 9 cm Pb block without discharging shielding trays of counters. The difference spectrum of +ve (90%) and -ve (10%) particles follows closely a p^{-2} law for $p \approx 50$ to 500 MeV/c.

W. J. SWATECKI

PMU

Phys. Inst. im Lebedev, AS USSR,
Phys. Inst. Acad. Sci. Arm. SSR

USSR

537.591.1

5150. Spectrum and interaction with matter of
protons in cosmic radiation. A. T. DADAYAN AND
G. L. MERZUM. Izv. Akad. Nauk SSSR (Ser. Fiz.) 17,
No. 1, 72-8 (1953) in Russian.

The experiments were performed at 3200 m altitude,
using a magnetic spectrograph with a 76 ton electro-
magnet (pole-pieces 100 x 30 cm, gap 12 cm, max.
field 19 000 Oe). Trajectories were determined by five
sets of counters with axis parallel, and five normal, to
the field. Each set contained 45 counters (dia.
4.5 mm, length 105 mm, Al. wall 0.1 mm thick)
(diagram in Wataghin's summary (see Abstr. 5147
above) which also gives curves of the spectrum of
particles produced in lead, and the spectrum of
protons produced in lead). The spectra can be well
represented by a power law with exponents of the
order of 2.8 and 3.8 for two of the curves of particles
produced in lead, and 2.8 for the high-energy protons,
in agreement with the results of Mylroie and Wilson
(Abstr. 5318 (1951)). [Transcription of Wataghin's
summary.]

PMZ

Physics Inst. in P. N. Lebedev, AS USSR

Physics Inst. Acad. Sci. Arm. SSR

MERZON, G.

USSR/Nuclear Physics - Cosmic Particles

21 Sep 53

"Observation of Stopping Particles of Masses 500-600 m_e ." A. Alikhanyan, Act Mex Acad Sci, USSR; V. Kirillov-Ugryumov, N. Shostakovich, V. Fedorov and G. Merzon, Phys Inst in Lebedev, Acad Sci USSR and Phys Inst, Acad Sci Geor SSR.

DAN SSSR, Vol 92, No 3, pp 511-513

Present tentative results of observations of particles of 500-600 m_e stopped in a Wilson chamber coupled with a magnetic spectrometer. Obtained data did not give conclusive decay scheme of specified particles, but the decay scheme of π - π^0 -meson is considered a possibility. Their life time is assumed to be 5.10^{-10} sec. Rec 21 Jul 53.

268787

MERZON, G.

*Heister
-RML*

USSR¹

539.18
6916. The existence of unstable charged particles with mass exceeding the mass of a proton. A. ALIKHANYAN, V. KIRILLOV-UGRAYANOV, M. SHOSTAKOVICH, V. FEDEROV AND G. MERZON. *Dokl. Akad. Nauk SSSR*, 92, No. 4, 719-21 (1953) In Russian. English translation, U.S. National Sci. Found. NSF-11-204.

Discusses two photographs, taken with the combined magnetic spectrometer and multi-plate cloud chamber, in which positively charged particles of mass $2230 \pm 150 m$, and $2250 m$, are observed to decay, giving a fast secondary. From the dimensions of the apparatus it is concluded that the lifetime of the heavy particles cannot be much less than 5×10^{-9} sec.

H. ELLIOT

RML

MERZON, G.

USSR

539.18

6209. Observation of the stopping of heavy mesons.
A. ALIKHANYAN, V. KIRILOV-UGRYUMOV, N.
SHESTAKOVICH, V. FEDOROV AND G. MERZON. Dokl.
Akad. Nauk SSSR, 92, No. 5, 919-921 (1953) In
Russian. English translation, U.S. National Sci.
Found. NSF-tr-214.

Discusses five examples of heavy mesons stopping in a multiplate chamber placed at the exit of a magnetic spectrometer. The first is positively charged and three particles emerge from the stopping point. Its mass is estimated to be $950 m$, and it is probably a π -meson. In the second case the primary is negative and on stopping gives rise to a single secondary at minimum ionization. The mass of the primary is estimated to be $940 \pm 90 m$. Two other cases were observed in which negative mesons with masses $\sim 1000 m$ stopped and the secondary particles were either π - or μ -mesons. The fifth example is a positive primary of mass $1520 \pm 150 m$, which gives rise to a single secondary and may be a χ -meson. H. ELLIOT

MERZON, G.I.

1-102

✓ Evaluation by photometry of the ionizing effect of particles
in a Wilson chamber. V. M. Fedorov, G. I. Merzon, and
M. I. Dolon. *Bull. Acad. Sci. U.S.S.R., Phys. Ser.* 6,
078-80 (1955) (English translation).—See *C.A.* 50, 7618f.
B. M. R.

Rec 3
Sci

Rm L

FEDOROV, V.M.; MERZON, G.I.; DAYON, M.I.

Photometric method for determining the ionizing capacity of particles
in the cloud chamber. Izv. AN SSSR.Ser.fiz.19 no.6:750-752 N-D '55.
(MLRA 9:4)

1.Fizicheskiy institut imeni P.N.Lobedeva Akademii nauk SSSR.
(Cosmic rays) (Nuclear physics)

22. Alikhanyan-Alikhanov Magnetic Spectrometer Described

"Alikhanyan-Alikhanov Magnetic Spectrometer in Combination With a Large Rectangular Wilson Cloud Chamber," by M. I. Dayon. V. M. Fedorov, G. I. Merzon, and N. V. Shostakovich, Physical Institute imeni P. N. Levedev, Academy of Sciences USSR, Pribery 1 Tekhnika Eksperimenta, No 1, Jan/Feb 57, pp 3-10

"Describes a mass spectrometer built in 1953. A system of counters separated by layers of an absorber is replaced by a large Wilson cloud chamber. The first such combination of a mass spectrometer with cloud chamber was conceived by A. I. Alikhanov in 1952. The new system is distinguished from previous variations of the mass spectrometer in that it permits detailed study of the behavior of a particle emerging from a magnetic field." -- Authors' abstract

Construction details, circuit diagrams, operating characteristics, and results of some measurements made on the instrument are given. (U)

1 - 2/

A Röntgen Wilson Chamber with Side Illumination.

(designed for pressures up to 1.5 atm. in the α and β volume). For slow expansion, the valve described in (Ref. 4) was used. The temperature was stabilized to $\pm 0.5^\circ\text{C}$ by placing the chamber in a special thermostating tank. Typical photographs of fast particles are shown in Fig. 7. A special investigation was carried out of the performance of the chamber in a magnetic field. Scattering of α -particles in lead has also been investigated and results will be published later. L. M. Varenkov, V. A. Nikol'skiy, and A. I. Koskovich collaborated. There are 7 diagrams, 10 tables and 5 references, of which 1 is Russian, 1 is Italian and 3 are English.

ASSOCIATION Institute of Physics imeni P. N. Lebedev.
(P. Lichstein, Institute im. P. N. Lebedev)

SUBMITTED: October 15, 1956.

AVAILABLE:

1. Cloud chambers-Operation

BANNIK, B.P.; GAL'PER, A.M.; GRISHIN, V.G.; KOTENKO, L.P.; KUZIN, L.A.;
KUZNETSOV, Ye.P.; MERZON, G.I.; PODGORETSKIY, M.I.; SIL'VESTROV, L.V.

Elastic scattering of 2.8 and 6.8 Bev./c π^+ -mesons on carbon.
Zhur. eksp. i teor. fiz. 41 no.5:1394-1401 N '61. (MIRA 14:12)

1. Ob"yedinennyy institut yadernykh issledovaniy i Fizicheskiiy
institut imeni P.N. Lebedeva AN SSSR.
(Mesons—Scattering) (Carbon)

S/056/62/042/005/003/050
B125/B108

AUTHORS: Kotenko, L. P., Kuznetsov, Ye. P., Merzon, G. I.,
Sharov, Yu. B.

TITLE: Elastic scattering of π^- -mesons with a momentum of 2.8 BeV/c
from hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 5, 1962, 1158 - 1165

TEXT: Elastic scattering of 2.8-BeV/c negative pions from hydrogen nuclei was measured with a propane bubble chamber with zero magnetic field. The 306 two-pronged stars selected for the study originated from relativistic particles which entered the chamber with a scatter of not over 2° . 60 ± 8 of the elastic scattering events of negative pions pertained to stars of type $1 + 1p$, and 13 ± 5 to stars of type $0 + 2p$. The differential cross section of elastic π^- -p-scattering in the c.m.s. first decreases rapidly from $d\sigma/d\Omega \approx 15$ mbarn/sterad at $\cos \theta^* = 1$, virtually approaching zero asymptotically. All this is indicative of a diffraction character of elastic scattering (small momentum transfer of the incident pion). 9% of
Card 1/3

Elastic scattering of...

S/056/62/042/005/003/050
B125/B108

the scattering events (with scattering angles of less than 30° in the laboratory system) were not recorded. The total cross section of elastic diffraction scattering amounts to $\sigma_d = 6.5 \pm 0.8$ mbarn, and the total cross section of all elastic processes to $\sigma_e = 7.8 \pm 0.9$ mbarn. The absorption cross section is $\sigma_a = 23.5 \pm 1.7$ mbarn, and the cross section of inelastic interaction is $\sigma_i = 22.3 \pm 1.7$ mbarn. For a spherical homogeneous nucleon of radius R and with a purely imaginary refractive index, the values corresponding to a standard deviation of the quantities σ_d and σ_t are respectively $R = (1.10 \pm 0.09) \cdot 10^{-13}$ cm and $K = (0.71 \pm 0.19) \cdot 10^{13} \text{ cm}^{-1}$ which corresponds to a root mean square radius of the proton $\langle r \rangle = (0.85 \pm 0.07) \cdot 10^{-13}$ cm) and fit well the experimental results. There are 7 figures. The most important English-language reference is: K. W. Lai, L. W. Jones, M. L. Perl. Phys. Rev. Lett., 7, 125, 1961.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

Card 2/3

Elastic scattering of...

S/056/62/042/005/003/050
B125/B108

SUBMITTED: November 23, 1961

Card 3/3

L 16145-63

EWI(m)/BDS AFPTC/ASD

ACCESSION NR: AP3005236

8/0056/63/045/002/0018/0025

AUTHORS: Merzon, G. I.; Kotenko, L. P.

TITLE: Inelastic scattering of 2.66-BeV negative pions by nucleons and carbon nuclei

SOURCE: Zhur. eksper. i teoret. fiz., v. 45, no. 2, 1963, 18-25

TOPIC TAGS: pion nucleon interaction, pion carbon interaction, propane bubble chamber, inelastic cross section, multiplicity distribution

ABSTRACT: The inelastic interaction characteristics of 2.66-BeV pions in propane bubble chamber were studied. It was found that at this energy the π^- -p inelastic cross section is 24.3 ± 3.0 mb. The multiplicity distribution for the secondary charged particles from π^- -p and π^- -n interaction agrees with the predictions of the statistical theory with allowance for isobar formation. The multiplicity distribution of the secondary relativistic particles is the same for interactions with hydrogen and with carbon. It is found that the effective numbers of "quasi-free" protons and neutrons in the carbon nucleus are both close to unity. An attempt was made to study pion resonances in the $(\pi^-, p) \rightarrow (\pi^-, \pi^+, n)$ reaction for neutron energies below 0.2 BeV. "The authors are grateful to

Card 1/2

L 16145-63

ACCESSION NR: AP3005236

7

Prof. A. I. Alikhanyan for his support of the present work, and to E. P. Kuznetsov and A. M. Gal'per for help with the experiment. They also thank V. M. Makcimenko for carrying the calculations used in the comparison of the experimental data with the predictions of the statistical theory. The authors thank R. A. Iaty*dova and E. G. Novikova for calculations on the electronic computer, and T. G. Chernyshova and G. A. Ignatova for aid in the reduction of the experimental data. We take this opportunity to thank the proton-synchrotron crew for faultless operation. Orig. art. has: 4 figures, 4 formulas, and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 02Feb63

DATE ACQ: 06Sept63

ENCL: 00

SUB CODE: PH

NO REF SOV: 014

OTHER: 003

Card 2/2

MERZON, M.D., inzh.; KHARCHENKO, I.S., inzh.

Improving the design of the D-150A asphalt distributor. Stroi.
i dor. mashinostr. 4 no. 2:30-31 F '59. (MIRA 12:2)
(Asphalt) (Road machinery)

MERZON, M.D., inzh.; LYASHEVICH, A.P., inzh.

Choosing automatic equipment for road construction bases. Stroi.
i dor. mash. 7 no.12:22-23 D '62. (MIRA 16:1)
(Automation) (Road machinery)

MERZON, M.D., inzh.; LYASHEVICH, A.P., inzh.

Efficient technological systems of asphalt concrete and cement concrete plants. Avt.dor. 25 no.3:7-8 Mr '62. (MIRA 15:3)
(Concrete plants)

MERZON, M.D., inzh.; LYASHEVICH, A.P., inzh.

Two-wheel dump trailers. Avt.dor. 25 no.12:26-27 D '62.

(MIRA 16:2)

(Truck trailers)

MERZON, M.D., inzh.

Mechanizing the operation of vertical sand drains at peat soils.
Avt. dor. 27 no.2:12-13 F '64. (MIRA 17:3)

MERZON, M. B., inzh.

Operation of road machinery under rental conditions. Avt. dor.
27 no. 2:2 J1 '62. (MCPA 17-12)

MERZON, M.D., inzh.

Machine for laying concrete beds. Avt.dor. 28 no.3:17-18 Mr '65.
(MIRA 18-5)

MERZON, M. I. —

"Investigation of the Action of a Storm Drainage Network."
Cand Tech Sci, Leningrad Polytechnical Inst, Leningrad,
1954. (RZhMekh, Oct 54)

Survey of Scientific and Technical Dissertations Defended at
USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

KUZOVLEV, G.M.; MERZON, M.I.

Some notes on the design of water-intake buckets. Vod. 1
san. tekhn. no.3:21-23 Mr '61. (MIRA 14:7)
(Water-supply engineering)

KUZOVLEV, G.M., Izv.; MERZON, V.I., 1964.

Draining the channels of heat networks. Vol. 1. Ser. 1. No. 43
9-12 F '64 (MIRA 1962)